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BRUHAT BANGALORE MAHANAGARA PALIKE

COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 7 UNDER CMC AND TMC GRANTS, KODIGEHALLI SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION.

ESTIMATED COST
Rs. 940.00 LAKHS

Detailed Project Report
Volume-II
(Estimations and Keymap)

Jan 2018

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Project: COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 7 UNDER CMC AND TMC GRANTS, KODIGEHALLI SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION

Sl No.	List of Roads
1	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti
2	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling
3	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no
4	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads
5	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura
6	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in
7	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via
8	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (
9	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board
10	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura
11	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road
12	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of
13	Construction of 2 RO Plant in ward No. 07, Byatarayanapura
14	Providing and Fixing Electrical Fittings in Wrd No. 07

Abstract Estimate

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
1	**KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)**	Cum	**10454.76**	202.92	**2121479.90**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		1620.00		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		804.18		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		1840.26		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		640.92		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		268.40		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		1177.92		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		530.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		689.38		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		932.40		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		492.25		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		1459.05		
2	**KSRRB M200-15.2. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceble material and stacking the serviceble material with all lifts complete as per specifications. iii) Dismantling Stone Masonry B. Rubble Stone maonry in cement mortar (P.No.137, I.No.18.27 of PW,P&IWTD SR 2016-17)**	Cum	**54.54**	380.27	**20739.93**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		54.54		
3	**KSRRB M200-14.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. ii) Dismantling brick/Tile work B. In cement mortar. MORTH Specification No. 202 (P.No.137, I.No.18.23 of PW,P&IWTD SR 2016-17)**	Cum	**36.00**	375.39	**13514.04**
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		36.00		
4	**KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. (P.No.137, I.No.18.18 of PW,P&IWTD SR 2016-17)**	Cum	**20.70**	513.19	**10623.03**
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		20.70		
5	**Removing and Resetting of Footpath Slab (P.No.265, I.No.37.56 of PW, P&IWTD SR 2016-17)**	Sqm	**3570.00**	132.50	**473025.00**

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		3570.00		
6	**Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)**	Sqm	**10405.60**	80.56	**838275.06**
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		827.14		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		1481.47		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		937.44		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		265.00		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		1691.52		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		519.75		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		1800.90		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		860.63		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		2021.76		
7	**Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)**	Sqm	**9726.92**	665.68	**6475016.77**
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		674.78		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		1936.37		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		1982.16		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		46.76		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		398.88		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		587.25		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		1880.10		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		600.30		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		286.88		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		1333.44		
8	**Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)**	Sqm	**60.00**	825.74	**49544.40**
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		36.00		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		24.00		
9	**KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. specification. No. KBS(P.No.6, I.No.2.15 of PW,P&IWTD S.R 2016-17)**	Cum	**81.69**	2283.12	**186508.07**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		81.69		
10	**KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)**	Cum	**176.93**	5348.76	**946329.36**
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		14.40		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		58.08		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		25.20		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		11.52		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		67.73		
11	**KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 (P.No.15, I.No.4.28 of PW, P&IWTD SR 2016-17)**	Sqm	**24.00**	244.86	**5876.64**

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		24.00		
12	**KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.15, I.No.4.31 of PW,P&IWTD SR 2016-17)**	Sqm	**172.80**	310.58	**53668.22**
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		172.80		
13	**Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges)** **Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. (P.No.18, I.No.4.48 of PW, P&IWTD SR 2016-17)**	Cum	**38.40**	6231.74	**239298.82**
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		38.40		
14	**KSRB - 4.9.2: Providing TMT steel reinforcement Fe500 for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.2 of PW, P&IWTD SR 2016-17)**	MT	**3.08**	64243.42	**197869.73**
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		3.08		
15	**KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 (P.No.12, I.No.5.27.2 of PW,P&IWTD S.R 2016-17)**	Sqm	**303.20**	880.86	**267076.75**

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		173.20		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		130.00		
16	**KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 (P.No.143, I.No.5.6 of PW,P&IWTD S.R 2016-17)**	Cum	**241.26**	4438.22	**1070778.27**
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		63.36		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		111.66		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		66.24		
17	**KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.112, I.No.15.1 of PW, P&IWTD S.R 2016-17)**	Sqm	**488.70**	102.82	**50248.13**
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		105.60		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		235.90		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		147.20		
18	**KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No. 4.6 of PWD SR 2015-16)**	Cum	**72.20**	5767.46	**416399.08**
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		5.76		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		47.54		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		18.90		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
19	**Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick for flooring conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification. (P.No. 109, I.No. 14.62 of PWD SR 2016-17)**	Sqm	**1335.00**	1150.10	**1535383.50**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		1335.00		
20	**Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)**	Sqm	**2499.60**	1738.00	**4344304.80**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		630.00		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		1365.60		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		504.00		
21	**Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)**	Sqm	**195.12**	4951.00	**966039.12**
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		86.40		
f	Improvements to roads and drains of Kallappa Layout(Left Hand side and Right Hand Side of Main Road) in Ward No.7,Byatarayanapura		36.72		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		72.00		
22	**KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)**	Cum	**6408.20**	164.76	**1055814.44**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		1534.14		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		239.75		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		743.82		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		1636.62		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		51.85		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		250.57		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		1133.56		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		23.29		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		123.08		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		671.52		
23	**KSRRB M300- Construction of Embankment with Material Gravel/ Murrum. KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300- 2 complete as per specifications.(Including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of proctors density) MORTH Specification No. 305 (P.No.147, I.No.19.60 of PW,P&IWTD S.R 2016-17)**	Cum	**1008.00**	320.12	**322680.96**
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		1008.00		
24	**KSRRB M400-6.2: Construction of granular sub-base by providing Close graded material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with mortar grader on prepared surface and compacting with vibratory roller to achieve the desired density, complete as per specifications. A Plant Mix methad For Grading II Material (P.No.155, I.No.20.4.2 of PW,P&IWTD SR 2016-17)**	Cum	**372.98**	1665.26	**621100.35**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		228.00		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		144.98		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
25	**KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)**	Cum	**5302.07**	1768.08	**9374486.40**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		862.94		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		239.75		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		743.82		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		1307.87		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		51.85		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		257.27		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		1133.56		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		23.29		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		123.08		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		558.65		
26	**KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)**	Sqm	**22350.08**	27.56	**615968.20**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		3456.50		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		1042.40		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		3234.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		5400.50		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		217.50		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		1034.50		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		4928.50		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		101.28		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		506.00		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		2428.90		
27	**KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)**	Sqm	**93451.82**	3.18	**297176.79**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		22711.50		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		8231.40		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		12473.30		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		11303.70		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		2555.50		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		12705.32		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		8509.00		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		14962.10		
28	**KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)**	Sqm	**123762.50**	12.72	**1574259.00**

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		29524.00		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		9663.40		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		15707.30		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		5400.50		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		11521.20		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		6490.00		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		4928.50		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		12806.60		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		9290.00		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		18431.00		
29	**KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.162 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)**	Cum	**562.41**	7120.02	**4004334.85**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		167.80		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		19.48		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		164.38		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		145.00		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		13.75		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		52.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
30	**KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)**	Cum	**4632.08**	8118.54	**37605694.29**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		1046.72		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		370.95		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		628.29		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		216.02		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		460.85		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		143.60		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		197.14		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		512.26		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		360.60		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		695.64		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
31	**Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) ((P.No.177.**	Cum	**87.65**	6217.96	**545004.19**
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		42.50		
I	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		45.15		
32	**Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17)**	Sqm	**876.50**	95.40	**83618.10**
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		425.00		
I	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		451.50		
33	**Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)**	No.	**1666.00**	331.78	**552745.48**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		733.00		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		933.00		
34	**Removing and resetting of kerb stones(P.No.185, I.No.37.57 of PW,P&IWTD SR 2016-17)**	m	**2970.00**	65.72	**195188.40**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		2970.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
35	**KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.182, I.No. 24.1 of PW.P&IWTD SR 2016-17)**	Sqm	**1302.00**	63.60	**82807.20**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		1155.00		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		147.00		
36	**KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)**	Sqm	**3470.30**	542.72	**1883401.22**
a	Improvements to Roads in Sahakar nagara from Big market to Ayyappa Swamy Temple Via Temple Kanti Sweets and Ganesha Temple Road in ward No 07,Byatarayanapura		596.00		
b	Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07		226.60		
c	Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura		538.60		
d	Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura		188.95		
g	Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura		381.30		
h	Road widening and Improvements to roads and drains from Sindhi College Main Road to Dead End (Muniswamy Gowda Layout) Main road in Ward No.7,Byatarayanapura		139.00		
i	Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura		130.00		
j	Improvements to Drains of Pampa Extension in Ward No 07 Byatarayanapura		453.10		
k	Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura		255.00		
l	Improvements to roads and drains from Renaissance Aero Apts, Santosh Vihar Phase-1 and Phase-2 of Jakkur Layout and Surrounding areas in Ward No.7,Byatarayanapura		561.75		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
37	**KSRRB M2100-1.1. Earth work in excavation for foundation of structures such as culverts, bridges etc., as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications I. Ordinary soil - A. Manual Means (i) Depth upto 3m MORTH Specification No. 304 including disposal of excavated earth upto a distance of 10km including loading and unloading charges(P.No.209, I.No.27.1 of PW,P&IWTD S.R 2016-17))**	Cum	**416.01**	248.84	**103519.93**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		416.01		
38	**KSRRB M2100-13. Plain / Reinforced Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum in Open Foundation complete as per Drawing and Technical Specifications MORTH Specification No. 1500,1700 & 2100.(P.No.211, I.No.27.24 of PW,P&IWTD S.R 2016-17)**	Cum	**46.13**	6340.68	**292495.57**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		46.13		
39	**Diversion of water course by providing Coffer dams or bunds or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., complete.(1.50 mtrs depth below LWL.)(P.No.257, I.No.37.41.1 of PW,P&IWTD S.R 2016-17)**	Cum	**67.50**	289.44	**19537.20**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		67.50		
40	**Diversion of water course by providing Coffer dams or bunds or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., complete.(beyond 1.50 mtrs depth upto & including 3m)(P.No.257, I.No.37.41.2 of PW,P&IWTD S.R 2016-17)**	Cum	**67.50**	356.40	**24057.00**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		67.50		
41	**KSRRB M800-43. Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45 x 45 x 5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 45°, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001 complete as per specifications.(P.No.186, Item no 24.44 of PW,P&IWTD S.R 2016-17))**	Each	**10.00**	2561.76	**25617.60**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		10.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
42	**KSRRB M2100-20.2. Plain / Reinforced Cement Concrete in Open Foundation with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008. case II : With Batching Plant, Transit Mixer and Concrete Pump MORTH Specification No. 1500,1700 & 2100(P.No.213, I.No.27.37 of PW.P&IWTD S.R 2016-17)**	Cum	**99.51**	6967.08	**693259.30**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		99.51		
43	**KSRRB M2200-5.19. Design mix M35 with OPC cement @ 390kgs,with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 - ii) For height, upto 5m,(P.No.214, I.No.28.7.18 of PW,P&IWTD S.R S.R 2016-17)**	Cum	**77.20**	7848.36	**605893.39**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		77.20		
44	**KSRRB M2300-8.1. Furnishing and Placing Reinforced/ Prestressed cement concrete in super-structure as per drawing and Technical Specification complete as per specifications. D. RCC / PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, Case - II : Using Batching Plant, Transit Mixer & Concrete Pump MORTH Specification No. 1500,1600 & 1700- Height upto 5 m(P.No.226 , I.No.29.16.1 of PW,P&IWTD S.R S.R 2016-17)**	Cum	**94.46**	7522.20	**710578.28**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		94.46		
45	**KSRRB M2200 -6 Supplying , fitting and placingTMT bar Fe 550 reinforcement in sub-structure complete as per drawing & technical specification complete as per the specification . MORTH Specification No.1600 & 2200(P.No.218 , I.No.28.8.3 of PW.P&IWTD S.R 2016-17)**	Tonne	**19.90**	68473.08	**1362614.29**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		19.90		
46	**KSRRB M2300 -14. supplying , fitting and placing TMT bar Fe 550 reinforcement in super-structure complete as per as per drawing & technical specification complete as per the specification . MORTH Specification No.1600.(P.No.231 , I.No.29.29.3 of PW.P&IWTD S.R 2016-17))**	Tonne	**12.28**	69599.52	**854682.11**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		12.28		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
52	**KSRRB 2200-8.1 Back filling behind Abutment, Wing wall & return wall to the full height compacted to a firm condition complete as per Drawing & Techincal Specifications. Complete as per specification A. Granular Material MORTH Specification No. 710.14of IRC: 78& 2200.With all Leads & Lift etc & as per the direction of the Engineer Incharge of the Work.(P.No.218, I.No.28.11 of PW,P&IWTD S.R 2016-17))**	Cum	**186.74**	565.92	**105679.90**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		186.74		
53	**KSRRB M2500-11. Construction of flexible apron 1 m thick comprising of loose stone boulders weighing not less than 40 kg beyond curtain wall complete as per specifications MORTH Specification No. 2507.2(P.No.241, I.No.30.14 of PW.P&IWTD S.R 2016-17))**	Cum	**274.80**	1558.44	**428259.31**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		274.80		
54	**KSRRB 2500 - 5.1 Providing & laying , flooring complete as per and technical specifiactions laid over cement concrete bedding complete as per specification. A. Rubble Stone laid in CM 1:3 MORTH Specification No. 2505(P.No.240, Item no 30.7 of PW.P&IWTD S.R 2016-17))**	Cum	**82.44**	4925.88	**406089.55**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		82.44		
55	**KSRRB M2500-10.Curtain wall complete as per drawing and Technical Specifications. B. Cement Concrete Grade M-15 MORTH Specification No. 2507.2(P.No.241, Item no 30.13 of PW,P&IWTD S.R 2016-17))**	Cum	**20.61**	5630.04	**116035.12**
e	Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura		20.61		
56	**Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction (P.48, I. 9.4) PRED.SR 2012-13**	Each BW	**2.00**	1882.00	**3764.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
57	**Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13 - 0 to 50m**	Rmtr	**100.00**	306.00	**30600.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		100.00		
58	**Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13 - 50 to 100m**	Rmtr	**100.00**	400.00	**40000.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		100.00		
59	**Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13 - 100 to 150m**	Rmtr	**100.00**	445.00	**44500.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		100.00		
60	**Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13 - 150 to 200m**	Rmtr	**100.00**	470.00	**47000.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		100.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
61	**Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13 - 200 to 250m**	Rmtr	**100.00**	544.00	**54400.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		100.00		
62	**Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by baseic open hearth electric or basic oxygen process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty P. iii, I No. 84 PRED SR 2012-13**	Rmtr	**100.00**	1325.00	**132500.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		100.00		
63	**Providing 250mm dia PVC Pipe 6kg/cm SE PRED Approved Rate**	Rmtr	**36.00**	754.47	**27160.92**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		36.00		
64	**Providing and fixing 160mm Borewell Cap P. iii, I No. 85**	Rmtr	**2.00**	100.00	**200.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
65	**Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps PWD SR 2016-17 P. XXXXII Item No. 24 including of all taxes-12.5 HP 25 Stage**	No	**2.00**	60400.00	**120800.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
66	**Supplying of ISI marked galvanized mild steel tube (continously welded electric resistance welded (ERW) high frequency, induction welded (HFIW) Hot finished welded type of nominal bore given below screwed at both ends as per IS 554/1986 with latest amendments, pipes threaftes at one end and the other end protected asper specification in random lengths of 4 to 7 mtrs Confirming to IS 1239 part I/1990 with amendament 1-5 and with all its latest amendements if any. The pipes supplied should be with BIS mark No 3/08-09 2406/15.10.2008**	Rmtr	**500.00**	375.00	**187500.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		500.00		
67	**Heavy Duty Collar 50 mm dia**	No	**88.00**	130.00	**11440.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		88.00		
68	**Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & confirming to GTP of GROUP-A. P. No. 12 / I No. 2.10.4(1) 3C x 6 Sqm mm KPWD Electrical SR 2014-15**	Mtr	**1020.00**	188.70	**192474.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		1020.00		
69	**Erection of pumpset including aligning and balancing with all necessary erection materials and labour including supply and erection of one pair supporting clamps, one borewell cap. Cable clips with bolts, nuts, valves guages etc., involoved in the job (Necessary GI pipe and specials with be supplied by the board at the site free of cost) (As per rate approved KUWS & DB for year 2008-09**	Nos	**2.00**	3000.00	**6000.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
70	**Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., P No. 44 / I No. 6.6.6 KPWD Electrical SR 2014-15**	Each	**2.00**	302.00	**604.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
71	**Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A P No. 55/ I No. 7.4.4 4 core 16 Sqmm KPWD Electrical SR 2014-15**	Mtr	**60.00**	140.40	**8424.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		60.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
72	**Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. P No. 61 / I No. 7.8.1 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15**	Mtr	**60.00**	10.80	**648.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		60.00		
73	**Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) P No. 61 / I. No. 7.9.3 KPWD Electrical SR 2014-15**	Mtr	**50.00**	85.00	**4250.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		50.00		
74	**Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV P. No. 62 / I No. 7.12.1 KPWD Electrical SR 2014-15 - 40mm dia GI pipe**	Mtr	**8.00**	345.00	**2760.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		8.00		
75	**Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., P. No. 62 / I.No. 7.13.2 KPWD Electrical SR 2014-15 - 16Sqmm**	No	**2.00**	280.00	**560.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
76	**Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia, (P No. 55, I No. 7.1) KPWD Electrical SR 2014-15**	No	**2.00**	2727.00	**5454.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
77	**Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.P No. 44 / I No. 6.7.2 KPWD Electrical SR 2014-15 - 32 Amps**	No	**12.00**	180.00	**2160.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		12.00		
78	**KSRB 13-7.1-4: Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KBS 13.2.16 / 13.13 Page No. 93 Item No. 13.55 / PWD SR 2016-17**	No	**2.00**	1615.68	**3231.36**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
79	**Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete. P. No. 95 / I. No. 13.81.3 PWD SR 2016-7**	No	**2.00**	232.20	**464.40**

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
80	**Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc complete**	No	**8.00**	80.00	**640.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		8.00		
81	**Supplying shunt capaitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications**	No	**2.00**	350.00	**700.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
82	**Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 5-32Amps TPN P No. 47 / I No.6.16.5 KPWD SR 2014-15**	No	**2.00**	1547.00	**3094.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		
83	**Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete P.No. 49, I. No. 6.40.2 KPWD Electrical SR 2014-15 - 16SWG**	No	**43800.00**	0.33	**14454.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		43800.00		
84	**Supplying and delivery at site brand new star / Essen/ Lotus/Sun-shines/Adarsh/ GK Controls best indigenous make combined energy meter - cum-control panel board unit of size 600x450 x200 mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3 ph, 50Hz, 380/440 volts, A.C supply with spring loaded latch, locking device with a key ribs should be provided inside the door, canopy apron and louvers ventilators shall be provided. the combined energy meter cum- control panel board unit suitable for operation. The panel board shall be fabricated on single unit in the above components for suitable pumpset. 12.5HP to 15 HP Star Delta Starter SERDED Rate**	No	**2.00**	11000.00	**22000.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
85	**Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including shiriry and statting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strructure manhole. Page No. 01/ Item No.1.2.2 / PRED SR 2012-13 Hard Soil**	Cum	**54.00**	188.00	**10152.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		54.00		
86	**Providing and instalation at site of works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., Page No.15 item No.3.4.2 b PRED SR 2012-13. - 75 mm dia 6 KSC PVC pipe**	Rmtr	**120.00**	157.00	**18840.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		120.00		
87	**Refilling the basement and pipeline treanches with secleted available earthe for trench excavation including authority condition in layers from thedi including disponsary of the sunplus earth with a heavy 200 mtrs Page No. 3 / Item No. 1.6 / PRED SR 2012-13**	Cum	**54.00**	61.00	**3294.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		54.00		
88	**KSRB 13.6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.6/13.3 P. 92 / I.13.37 PWD SR - 2016-17**	Each	**4.00**	2216.16	**8864.64**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		4.00		
89	**KSRB 2-2.2 : Earth work excavation for foundation of buildings, culverts water supply, sanitary line and electrical conduits either in pits or in trenches 1.5m and above in width, in Hard soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m, after breaking of clods complete as per specifications, specification, No, KBS 2.1(a) / 2.3.5, Page No. 5 / Item No. 2.3/ PWD SR 2016-17**	Cum	**48.09**	204.12	**9816.13**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		48.09		
90	**KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180 kgs with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregares @ 0.57 cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. No. 12/ Item No. 4.3/ PWD SR 2016-17**	Cum	**13.44**	5256.36	**70645.48**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		13.44		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
91	**KSRB 5.2.3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.KBS 5.1.13 Page No. 23 / Item No. 5.6 / PWD SR 2016-17**	Cum	**11.16**	4521.96	**50465.07**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		11.16		
92	**KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.KBS 5-1.13 Page No. 23 / Item No. 5.9 / PWD SR 2015-16**	Cum	**5.02**	5405.40	**27135.11**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		5.02		
93	**KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 (P.6/I.2.10) PWD SR 2016-17**	Cum	**48.09**	137.16	**6596.02**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		48.09		
94	**KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4. Page No. 25 / Item No. 5.27 / PWD SR 2016-17**	Sqm	**111.04**	1011.96	**112368.04**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		111.04		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
95	**KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320 kgs, with 20mm and down size graded granite metal, coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum with superplastisiser @ 3lts confirming to IS 9103-1999 reaffirmed-2008 machine mixed, concrete laid in layers not exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, walls (any thickness) including attached plasters, column, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc, including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1,4.6, No. 13/ Item No. 4.11/ PWD SR 2016-17**	Cum	**16.17**	6491.88	**104973.70**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		16.17		
96	**KSRB 4.2.10 : Providing and laying in position reinforced cement concrete ofmix M20 with OPC cement @ 24kgs, with 12 mm and down size graded granite metal coarse aggregates @ 0.5175 cum and fine aggregates @ 0.345 cum with superplastisiser @ 0.225lts,machine mixed, well compacted for plain chajja of 7.5 cms. average thickness, upto ground floor lever, including cost of all materials, labour, HOM of machinery, curing, complete as per specification. Specification NO. KBS 4.1, 4.6 Page No. 14 / Item No. 4.19 / PWD SR 2016-17**	Sqm	**4.05**	492.48	**1994.54**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		4.05		
97	**KSRB 4.9.1: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications.Specification No. KBS 4.6.3 Page No. 17 / Item No. 4.46.2 / PWD SR 2016-17 - FE 500**	MT	**1.97**	75081.60	**147910.75**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		1.97		
98	**KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification NO KBS 4.6.2 Page No. 15 / Item No. 4.31/ PWD SR 2016-17**	Sqm	**117.50**	316.44	**37181.70**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		117.50		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
99	**KSRB 4-6.10 : Providing and removing centering, shuttering, strutting, propping etc., for chajjas, corbels etc., including edges including cost of all materials, labour complete as per specifications. Specification NO KBS 4.6.2 Page No. 16 / Item No. 4.37 / PWD SR 2016-17**	Sqm	**5.40**	291.60	**1574.64**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		5.40		
100	**KSRB 15.3.13 : Providing 12mm thick cement plaster in single coat with cement mortar 1:3, to ceiling including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. Page No. 114 / Item No. 15.21 / PWD SR -2016-17**	Sqm	**38.54**	208.44	**8033.28**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		38.54		
101	**KSRB 15.3.11 :Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. Page No. 114 / Item No. 15.19 / PWD SR 2016-17 (Inside wall)**	Sqm	**88.24**	252.72	**22300.01**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		88.24		
102	**KSRB 15-7 : Providing lime rendering for plastering to wall and ceiling, including cost of materials, labour, curing complete as per specifications. (P. 115 / I. 15.33 PWD SR - 2016-17).**	Sqm	**126.78**	27.00	**3423.06**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		126.78		
103	**KSRB 15.3.9: Providing 18mm thick cement plaster in single coat with cement mortar 1:6, to brick masonry including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications Page No. 114 / Item No. 15.17 / PWD SR 2016-17 (Out side Wall)**	Sqm	**115.12**	213.84	**24617.26**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		115.12		
104	**KSRB 15-14.1 : Providing and applying two coats with oil bound washable distemper of approved brand and shade on wall surface including priming coat with distemper primer after thoroughly brooming the surface free from mortar drops and other foregin matter including preparing the surface even and sand paper smooth, cost of materials, labours, complete as per specifications PWD SR 2016-17 (P.117 /I. 15.49.1)**	Sqm	**215.02**	76.68	**16487.73**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		215.02		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
105	**KSRB 15-16.1: providing and finishing external walls in tow coats with water proof cement paint of approve brand and shade to give an even shade after thourghly brooming the surface to remove all dirt and losse powdered material, free from mortar dops and other foreign matter cost of materials, labours, complete as per specifications PWD SR 2016-17 (P. 118 / I. 15.53.2) with Primer**	Sqm	**115.12**	90.72	**10443.69**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		115.12		
106	**KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. Page No. 121 / Item No. 15.74 / PWD SR 2016-17**	Sqm	**70.11**	88.56	**6208.94**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		70.11		
107	**Providing and fixing Special make glazed Vitrified tiles (Granomite finis) of approved make, quality and colour of sized 6000x600x10mm thick fixed on existing flooring wit ha special roffe adhesive for flooring and skirting etc., complete including providing spears at required interval and removing stains etc., complete. Page No. 107 / Item No. 14.43 / PWD SR 2016-17**	Sqm	**82.19**	1285.20	**105630.59**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		82.19		
108	**Providing and laying/fixing cement base, precast pre polished cement concrete, designer tiles 25mm thick conforming to IS 1237 heavy duty tiles for flooring reads of steps of steps and landin, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of material,s including cutting, griding the edge ti half/ful rounf wherever requires labour, curing complete as per specification Page No. 109 / Item No. 14.62 / PWD SR 2016-17**	Sqm	**9.00**	1171.80	**10546.20**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		9.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
109	**KSRB 7.7 : Providing and fixing in position in cement concrete 1:3:6 steel glazed windows and ventilators side hung/top hung fully openable as per approved drawings using Z angles of 25x33x3mm, weighing 1.419Kg/m both for outer and inner frames and central mullion section of size 25x46x3mm weighing 2.28Kg/m duly providing T section 19x19x3mm weighing 0.839 kg/m for glazing of windows not more than 34 cms. c to c including providing and fixing 4mm thick reeded glass with teakwood beading of required size, all steel section should confirm to I.S. 7452:1990, 4nos, of holdfasts of approved size section should be cut to length welded and electrically grinded subdividing frames of unit shall be tenonned and revetted into the frames electrically. All the steel surface shall be thoroughly cleaned free of rust and painted with one coat of anti-corosive paint and finishing with two coats of ready mix paint of approved colour and make including cost of materials, fixtures, labour and HOM of machinery complete as per specifications. Specification NO. KBS 7.12.1 / 7.12.2 / 7.12.3 / 7.12 Page No. 32 / Item No. 7.7/ PWD SR**	Sqm	**2.16**	3812.40	**8234.78**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.16		
110	**KSRB: 7.5 Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & operations complete Including pulling hooks, 4nos handles wit hall fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery complete as per specifications. Shutter size 3mx2.8m Specification NO. KBS 7.10 / 7.12 Page No. 31 / Item No. 7.5/ PWD SR 2015-16**	Sqm	**15.00**	3090.96	**46364.40**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		15.00		
111	**Providing revsrse osmosis system to cover 2000 Liters of High TDS water per hour with RAW WATER PUMP, SAND MEDIA FILTER, ACTIVATE CARBON FILTER, DOSING SYSTEM, MICRON FILTER, HIGH PRESSURE PUMP, RO membrane housing., RO MEMBRANES, RO CLEANSING SYSTEM, ELECTRICAL PANEL, INSTRUMENTATION, PH DOSING SYSTEM**	Nos	**2.00**	515000.00	**1030000.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
112	**Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2 X1.5Sq.mm Cable confirming to the GTP, with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet / gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. GROUP A (Page No. 05, Item No.2.1 KPWD SR 2014-15 - b) Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch**	Point	**4.00**	245.00	**980.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		4.00		
113	**Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using 1100V grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2 X1.5Sq.mm Cable confirming to the GTP, with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet / gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet. GROUP A (Page No. 05, Item No.2.1 KPWD SR 2014-15 - c) Long point above 6Mtr upto 10Mtr from tapping point to out let via switch**	Point	**4.00**	363.00	**1452.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		4.00		
114	**Supplying and flush mounting teak wooden box without front plank, made of not less than 12mm thick wood, after due groove cutting, Finishing with necessary cement plastering complete (Page No. 03, Item No. 1.6) KPWD SR 2014-15 - (1.6.5) 4"x4"x3" (101x101x76mm)**	Each	**24.00**	68.00	**1632.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		24.00		
115	**Supplying and flush mounting teak wooden box without front plank, made of not less than 12mm thick wood, after due groove cutting, Finishing with necessary cement plastering complete (Page No. 03, Item No. 1.6) KPWD SR 2014-15 - (1.6.1) 12"x12"x3" (300x300x76mm)**	Each	**12.00**	116.00	**1392.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		12.00		
116	**Supplying and flush mounting teak wooden box without front plank, made of not less than 12mm thick wood, after due groove cutting, Finishing with necessary cement plastering complete (Page No. 03, Item No. 1.6) KPWD SR 2014-15 - (1.6.3)10"x7"x3" (254x178x76mm)**	Each	**12.00**	87.00	**1044.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		12.00		
117	**Supplying 4mm thick plastic sheet with necessary nitches for fixing switches, regulators etc., and fixing on existing wooden or metal box using N.F. screws. (Page No. 17, Item No. 3.9) KPWD SR 2014-15**	Sqcm	**13333.32**	0.25	**3333.33**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		13333.32		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
118	**Extra for Groove cutting in brick wall/CC floor to the suitable depth for concealing of Conduit/GI pipe and plastering, finishing upto wall surface complete. upto 50mm conduit in brick wall (Page No. 03, Item No.1.7.1) KPWD SR 2014-15**	Mtr	**20.00**	21.00	**420.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		20.00		
119	**Supplying heavy gauge PVC Conduit Pipe 19/20 mm dia 2 mm thick with suitable size bends, metal junction boxes adhesive paste etc., by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering up to the wall surface and run with 18 SWG GI fish wire run throughout the conduit wherever necessary. (Page No. 02, Item No. 1.3.1) KPWD SR 2014-15**	Mtr	**20.00**	56.00	**1120.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		20.00		
120	**Supplying and fixing PBBC/Bakelite straight or slant batten holder and wiring with 60w/230 volts lamps. (Page No. 20, Item No. 4.2) KPWD SR 2014-15**	Each	**4.00**	88.00	**352.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		4.00		
121	**Supplying patti type fluorescent tube light fitting of 2' - suitable for 14 watts fluorescent tube fitting, made out of M.S. Sheet and stove enameled with HF Electronic Ballast , locking type brass contact holders mounted on double fold type sheet base fully wired for use on 230 volts AC . Supply including T5 lamp. (Page No. 20, Item No. 4.5) KPWD SR 2014-15**	Each	**8.00**	591.00	**4728.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		8.00		
122	**Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper with low conductor resistance single core wire in open or concealed system of wiring with specified IS-694:1990 & confirming to GTP of GROUP -A 1.5 sqmm (Page No. 06, Item No. 2.5.2) KPWD SR 2014-15**	Mtr	**10.00**	18.60	**186.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		10.00		
123	**Supplying and fixing cast Aluminum round or oblong type bulk head fitting with GI wire guard, glass cover with 60/100 watts 230V GLS lamp. (Page No. 20, Item No. 4.3) KPWD SR 2014-15**	Each	**8.00**	747.00	**5976.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		8.00		
124	**Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia (Page No. 55, Item No. 7.1) KPWD SR 2014-15**	No	**2.00**	2727.00	**5454.00**
m	Construction of 2 RO Plant in ward No. 07, Byatarayanapura		2.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
125	**LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools.**	Each	**120.00**	18720.00	**2246400.00**
n	Providing and Fixing Electrical Fittings in Wrd No. 07		120.00		
126	**Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires. Using 32mm dia G.I.pipe**	Each	**182.00**	893.00	**162526.00**
n	Providing and Fixing Electrical Fittings in Wrd No. 07		182.00		
127	**Wiring for lighting/power circuit using one of PVC insulated 1100v grade stranded Aluminium unsheathed wire single core/multi core cable in open or consealed system of wiring. a)4 sqmm.**	Each	**600.00**	7.50	**4500.00**
n	Providing and Fixing Electrical Fittings in Wrd No. 07		600.00		
128	**Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A.3.5 core 25 sqmm**	Per Mtr	**200.00**	165.60	**33120.00**
n	Providing and Fixing Electrical Fittings in Wrd No. 07		200.00		
129	**Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct.25 sqmm to 75 sqmm**	Per Mtr	**200.00**	34.80	**6960.00**
n	Providing and Fixing Electrical Fittings in Wrd No. 07		200.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
130	**Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step**	Each	**30.00**	51500.00	**1545000.00**
n	Providing and Fixing Electrical Fittings in Wrd No. 07		30.00		

Sl. No.	Description of Item	Unit	Quantity	Rate in Rs.	Amount in Rs.
131	**Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes25 sqmm Long Barrel**	Each	**72.00**	20.59	**1482.48**
n	Providing and Fixing Electrical Fittings in Wrd No. 07		72.00		
				Construction Cost	**92159751.99**
132	**Cost towards Preparation of DPR LS**				**900000.00**
133	**Cost towards PMC / Third Party inspection LS**				**900000.00**
	Cost towards BESCOM deposite Charges for Borewell LS				**20000.00**
	Cost towards BESCOM deposite Charges for RO Plant LS				**20000.00**
	Sub Total				**93999751.99**
134	**Miscellaneous and rounding off LS**				**248.01**
	Grand Total of the package				**94000000.00**

Total Cost of Package (In Words): Rupees Nine Crore Forty Lakh Only

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

For Tejus Consultants

Assistant Engineer DE(Ent)

Assistant Executive Engineer

Executive Engineer

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಂಕಾಯಿಕ್ಯೆಕ್ಟ್ ಇಲ್ಲಾಖೆ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ ಬೆಂಗಳೂರು-560092.

Technical Sanction
9.40 Lakh
P3158
19 to 32, 29-01-18
TA
(YNK)